

U.S. Commercial Fisheries. Center for Environmental Education, Washington, D.C., 19 pp.

----- (1984): Incidental capture of sea turtles by commercial fisheries. Smithsonian Herpetological Information Service. No. 62, 8 pp.

GORDON, W.G. & FLETCHER, J.R. (1984): The national report for the country of United States of America. Western Atlantic Turtle Symposium. University of Miami Press, Miami. Vol 3, pp. 3-423 - 3-488.

FRAZIER, J. (1981): Recaptures of Marine Turtles Tagged in East Africa: Evidence for a Non-Migratory Green Turtle Population? *African Journal of Ecology* 19(4): 369-372.

KABRAJI, A.M. & FIRDOUS, F. (1984): Conservation of turtles: Hawksbay and Sandspit, Pakistan. World Wildlife Fund and Sind Wildlife Management Board, Karachi. viii + 52 pp.

MURTHY, M.S., BHATTACHARYA, M. & RADIA, P. (1978): Ecological studies on the intertidal algae at Okha (India). *Bot. Mar.* 21: 381-386.

23. MORPHOMETRY OF THE INDIAN FLAP-SHELL TURTLE (*LISSEMYS PUNCTATA ANDERSONI*)

Morphometry of the Indian flap-shell has already been described by Smith (1933), Pritchard (1979) and Daniel (1983). The present note contains some additional information based on studies on specimens from the Keoladeo National Park, Bharatpur, Rajasthan, India.

The presence of seven callosities in the plastron is one of the main characteristic features of flap-shells. However, about 5% (34 out of 740 examined) of the turtles in this Park had only six callosities. The one missing was the singular entoplastral callosity and was recorded in smaller individuals with a carapace length (CL) less than 130 mm. Only in 8 cases was it observed in specimens above 130 mm. Flapshell turtles without an entoplastral callosity have also been reported in the past from Rajasthan (Biswas and Sanyal 1977). The size of this callosity seems to bear a relationship to the age and size of the turtle.

Earlier records show that the maximum known carapace length and weight of this species are 275 mm and 4.5 kg respectively. In Keoladeo National Park, instances of carapace length (curvature measurement) exceeding 280 mm were fairly common (25 out of 740 examined)

and the maximum recorded length was 350 mm. The highest recorded weight in this Park was 5.2 kg in summer. This particular specimen was a female and had no signs of developed eggs when examined by probing the inguinal area.

The flap-shell turtle has two pairs of external glands as given by Smith (1933). One pair opens on the lower side of both hyo- hypo callosities of the plastron which is exactly above the cutaneous femoral valve. The other pair opens on either side of the anterior part of the carapace, just above the midline of the forelimb cavity (humeral). The presence of the latter was not mentioned by Auffenberg (1981) while describing the glands of this species. These glands secrete an odorous yellow fluid which, presumably has a defence function, averting the attack of predators at least for a short duration.

I am thankful to Dr. V. S. Vijayan, Project Scientist, BNHS Ecological Research Centre, Bharatpur for encouragement and to Mr U. Sridharan.

December 31, 1988

S. BHUPATHY

REFERENCES

AUFFENBERG, W. (1981): Behaviour of *Lissemys punctata* (Reptilia, Testudinata, Trionychidae) in a drying lake in Rajasthan, India. *J. Bombay nat. Hist. Soc.* 78(3): 487-493.

BISWAS, S. & SANYAL, D.P. (1977): Fauna of Rajasthan, India. Part: Reptilia. *Rec. Zool. Surv. India.* 73: 247-269.

DANIEL, J.C. (1983): The book of Indian Reptiles. Bombay

Natural History Society, Bombay.

PRITCHARD, P.C.H. (1979): Encyclopedia of turtles. TFH Publications, New Jersey.

SMITH, M.A. (1933): The Fauna of British India, including Ceylon and Burma. Reptilia and Amphibia. Vol. I Loricata, Testudines. Taylor and Francis, London.

24. NEW LOCALITY RECORD FOR THE INDIAN PINKRINGED TERRAPIN

In July 1988, during my visit to the Patalia Hanuman, on the outskirts of Surat city (21°12'N, 72°52' E) on the bank of the river Tapti and where the river meets the Gulf of Cambay and forms an estuary, I saw a freshwater turtle basking on the dry mudflats, about 3 m away from the river. I captured the turtle and it was identified as an Indian Pinkringed terrapin, *Kachuga tentoria*

circumdatta. The description and other details are given below.

Measurements & Weight: Carapace length 96.0 mm, carapace width 81.0 mm, plastron length 71.9 mm, body height 43.3 mm and weight 85.0 g.

Description: Carapace olive brown with a light pink ring around pleuro marginal junction. Carapace elevated